

PATENT ABSTRACTS OF JAPAN

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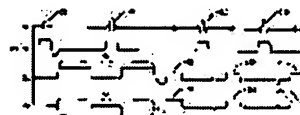
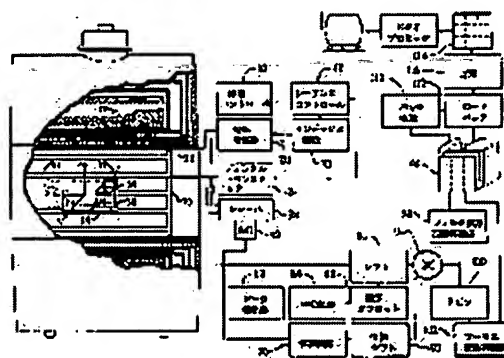
(54) MAGNETIC RESONANCE IMAGING METHOD AND APPARATUS

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a magnetic resonance imaging method and a magnetic resonance imaging apparatus.

SOLUTION: Diffusion sensitivity gradients 54 and 56 and reading gradients 66 and 68 are induced into a slice or slab selected along each of a pair of vertical shafts GX and GY. An operation sensitivity gradient pulse makes an excited magnetic resonance sensitive with respect to diffusion in the previously selected direction of diffusion vertical to the selected direction of the reading gradient.

The diffusion sensitivity gradients are turned by $\sin(\theta + \pi/2)$ and $\cos(\theta + \pi/2)$ and the reading gradients by $\sin\theta$ and $\cos\theta$ to generate a plurality of angularly displaced data lines. The direction of the diffusion sensitivity is vertical to the direction of reading in each of the data line angularly displaced. The phase of each of the data lines is determined 90 and shifted 94 to compensate for linear movement. Data values in the data lines are shifted 86 so that the size of the peak of the data line is



centered at a previously selected position to compensate for movement of a higher order. The set of the data lines angularly incremented is reconstructed 96 in an image display 98.

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